

for

Notice of Allowability

Application No.

10/712,200

Examiner

Derek L. Dupuis

Applicant(s)

KUBBY ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 7/8/2005.
2. ☒ The allowed claim(s) is/are 1-16, 18 and 20.
3. ☒ The drawings filed on 12 November 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Leanna Levin (Reg No 51,939) on 7/25/2005.

The application has been amended as follows:

In claim 1, delete the word "drive" in line 10 and replace it with the word --latch--.

In claim 16, insert the words --is provided-- in between the word "linkage" and the word "for" in line 8 of the claim.

Response to Arguments

2. Applicant's arguments, see pages 6-8, filed 7/8/2005, with respect to the rejection of claims 1, 3, 4, 6-9, 16, 17, 19, and 20 under 35 U.S.C. 103(a) over Agrawal et al in view of Labeye et al have been fully considered and are persuasive. The rejection of claims 1, 3, 4, 6-9, 16, 17, 19, and 20 has been withdrawn. As such, the rejection of claims 2, 5, and 18 under 35 U.S.C. 103(a) over Agrawal et al in view of Labeye et al and in further view of Lee et al has also been withdrawn. Applicant has amended the application to cancel claims 17 and 19.

Allowable Subject Matter

3. Claims 1-16, 18, and 20 are allowed.

4. The following is an examiner's statement of reasons for allowance:

5. Claims 1-9 are allowable over the prior art of record because the latter, either alone or in combination, does not disclose nor render obvious an optical switch comprising one or more thermal drive actuators and one or more associated thermal latch actuators defining latch teeth, a movable waveguide shuttle platform defining a plurality of optical waveguides, a tether connecting the one or more thermal drive actuators to the movable waveguide platform, and a linkage defining one or more linkage teeth for orthogonal connection to the latch teeth so as to determine one or more latched state positions wherein electrical stimuli is timed to actuate said one or more thermal drive and thermal latch actuators so as to switch between equilibrium and latched states in combination with the rest of the claimed limitations.

6. Claims 10-15 are allowable over the prior art of record because the latter, either alone or in combination, does not disclose nor render obvious an optical latching switch comprising one or more thermal drive actuators, one or more thermal latch actuators defining associated latch teeth, a movable shuttle platform defining optical waveguides, a tether for connecting the movable shuttle platform to the latch teeth to determine one or more latched state positions, a linkage defining one or more linkage teeth for orthogonal connection to the latch teeth wherein the linkage connects the tether to a hitch attached to the one or more thermal drive actuators, and further comprising electrical stimuli timed to actuate the thermal drive and the thermal latch actuators so as to change between equilibrium and latched states in combination with the rest of the claimed limitations.

7. Claims 16, 18, and 20 are allowable over the prior art of record because the latter, either alone or in combination, does not disclose nor render obvious an optical switch comprising a plurality of waveguides formed on a movable shuttle platform for switching optical states

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wherein the optical switch is state changed by using a latching mechanism in association with a thermal drive actuator for aligning the plurality of waveguides to a plurality of stationary optical waveguides, wherein a tether connects the thermal drive actuator to the movable shuttle platform, and wherein a linkage is provided for connecting the thermal drive actuator to translating latch teeth of one or more latch actuators in combination with the rest of the claimed limitations.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derek L. Dupuis whose telephone number is (571) 272-3101. The examiner can normally be reached on Monday - Friday 8:30am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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Frank G. Font
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